

CLAIMS

What is Claimed is:

1 *Subal* 1. In a system having a multi-speed engine with an air inlet line
2 connected to said engine, a Helmholtz resonator structure comprising:
3 a closed chamber defining a Helmholtz resonator continuously
4 operatively connected to said inlet line via a restricted connection; and
5 means for changing the frequency response of said Helmholtz
6 resonator responsive to changes in speed of said engine.

1 *Subal* 2. The Helmholtz resonator of claim 1 wherein said means for
2 changing the frequency response includes means for effectively changing the volume
3 of said closed chamber connected to said inlet line.

1 3. The Helmholtz resonator of claim 1 wherein said means for
2 changing the frequency response includes at least one restricted connection which is
3 selectively connected between said chamber and said inlet line.

1 4. The Helmholtz resonator of claim 3 wherein said means for
2 changing the frequency response further includes means for effectively changing the
3 volume of said closed chamber connected to said inlet line via said restricted
4 connections.

1 *Suba2*) 5. A refrigeration system having a multi-speed engine with an
2 inlet line connected to said engine, microprocessor means for controlling the speed of
3 said engine, the improvement comprising:
4 a closed chamber defining a Helmholtz resonator continuously
5 operatively connected to said inlet line via a restricted connection; and
6 means for changing the frequency response of said Helmholtz
7 resonator responsive to changes in speed of said engine.

1 *Suba3*) 6. The Helmholtz resonator of claim 5 wherein said means for
2 changing the frequency response includes means for effectively changing the volume
3 of said closed chamber connected to said inlet line.

1 7. The Helmholtz resonator of claim 5 wherein said means for
2 changing the frequency response includes at least one restricted connection which is
3 selectively connected between said chamber and said inlet line.

1 8. The Helmholtz resonator of claim 7 wherein said means for
2 changing the frequency response further includes means for effectively changing the
3 volume of said closed chamber connected to said inlet line via said restricted
4 connections.

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